Your Health System: In Depth — Overall Results Matrix Methodology

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Figure   Sample Overall Results matrix

Overall Results

Background

The purpose of the Overall Results matrix (see the figure above) is to provide a visual snapshot of results for indicators in Your Health System: In Depth at 2 levels: organizational (long-term care facility, long-term care corporation, or hospital with long-term care and/or acute care services) and regional. Indicators in the matrix are categorized into 3 high-level categories: those that are generally considered above average for comparison and trend over time (green with 2 triangles), those generally considered to be the same as average (blue with a bowtie shape) and those that may require further assessment (pink with a single triangle).

Interpreting Overall Results

Vertical assignment is determined based on the indicator's result relative to that of a comparator. For hospital results, the comparator is the peer group average. For long-term care organizations and health regions, the comparator is the national average.

Horizontal assignment is based on the indicator's trend over time using the most recent 3 years of data for lead indicators and the most recent 5 to 10 years of data for lag indicators. The directionality of the indicator must be considered when interpreting the matrix. Depending on the indicator, a higher result or increasing trend may represent desirable or less desirable results. For example, if a higher result is more desirable for the indicator (e.g., Life Expectancy) and the result is significantly higher than the Canadian or peer group average and the indicator result has been increasing over time, the result is assigned to the upper-right green square with 2 triangles. If a higher result is less desirable for the indicator (e.g., Restraint Use in Long-Term Care) and the result is significantly higher than the Canadian or peer group average and the indicator result has been increasing over time, the result is assigned to the lower-left pink square with a single triangle, highlighting that further investigation may be required. If a result is not significantly different from the Canadian or peer group average and has not changed significantly over time, the result is assigned to the central blue square with a bowtie shape.

Methodology

Vertical axis: Comparisons

Confidence intervals are used where possible to establish whether the indicator result is statistically above the average, below the average or the same as the average. For indicators without confidence intervals, such as emergency department wait time indicators, colour-coding is assigned based on the indicator value relative to the 20th and 80th percentiles of indicator values for all hospitals.

For hospital-level results, the peer group average is used instead of the national average. For indicators without confidence intervals, the 20th and 80th percentiles of the indicator values of hospitals within the peer group are used.

Horizontal axis: Trend over time

Horizontal assignment is based on the indicator's trend over time. Trend over time is assessed using linear regression analysis for directional indicators. Depending on the indicator, an increasing trend may be more or less desirable. Therefore, the directionality of the indicator must be considered when interpreting the results.

For long-term care indicators and some directional indicators that are risk-adjusted, a series of 2 z-tests are used to compare the log-odds of an organization's results over the most recent 3 years to determine trends. For other directional indicators, linear regression analysis and the statistical significance of the regression coefficients are used to determine trends.

More detailed information on the trend analysis methodology is described in the relevant sections of *Identifying Indicator Top Results and Trends for Regions/Facilities*.

Indicators included in Overall Results

Since at least 3 consecutive years of data are required for the trend analysis methodology, indicators without 3 or more consecutive years of available data are not included in the Overall Results section. Additionally, non-directional indicators and newly developed indicators are not included in Overall Results.

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